


**MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND AVIATION ADMINISTRATION**

MEMORANDUM

TO: Distribution

FROM: Benjamin Chin, Director 
Office of Design and Construction

DATE: February 18, 2011

SUBJECT: Design Standard (DST) 2011-05, Maintenance, Repair and Operating Items

Effective immediately, the following requirements and specifications regarding Maintenance, Repair and Operating Items shall be followed and added to the MAA Design Standards, dated October 2010. This DST replaces DST 2010-07, Maintenance, Repair and Operating Items, issued on December 2, 2010.

Insert the following into MAA Design Standards, dated October 2010, Section 4.16:

4.16 MAINTENANCE, REPAIR AND OPERATING ITEMS (MROI)

Contract documents shall include provisions for Maintenance, Repair and Operating Items (MROI) formerly known as "attic supplies" or "attic stock". MROI requirements shall follow Industry Standards. Designer shall determine jointly with Maryland Aviation Administration (MAA) Offices of Design and Construction, Maintenance and Utilities, Capital Programs and Procurement the type and quantity of MROI. For projects involving information technology and communications specifications, the Office of Technology shall also be included in determining and approving MROI. Designer shall submit to MAA calculations used to determine quantity for MROI. The final amount of MROI required shall be determined on a case by case basis and shall be approved by the MAA.

The designer shall include a section in the Engineer's Report providing a description of each MROI, justification for the item, and the determination of the MROI quantity. The quantity shall be a measureable unit, not specified as a percentage of materials. The designer shall also coordinate with the MAA Warehouse and MAA Procurement to determine if any specific language should be included in the contract documents for delivery and acceptance of new MROI inventory.

The designer is required to fill out the attached Table entitled "MROI List Approval". This list shall include the serial number, specification section, material/product/description, quantity and units. A specific quantity and measurable unit is required which corresponds to the justification as provided in the Engineer's Report. A percentage of materials is not acceptable. The designer shall obtain necessary signatures on the MROI List Approval form prior to advertisement and include the form in the Engineer's Report.

Project specifications shall include the X-3 specification, *Maintenance, Repair and Operating Items* in Appendix D. The specification requires the Contractor to complete the MROI List and the Record of Delivery forms. The specifications also require the Contractor to coordinate with the Engineer the delivery and acceptance of any new MROI at the MAA Warehouse and the completion of the required documentation.

Insert the attached specification, X-3, Maintenance, Repair and Operating Items, into MAA Design Standards, dated October 2010, Appendix D.

If the above specifications conflict with any other codes or regulations, or if you should have any questions, please contact the Director, Office of Design and Construction at 410-859-7093.

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| | |
|---|--|
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| Mr. Chris Mills (Parsons) | Ms. Phoebe Yost (MAA) |

bcc: MAA Intranet
Alison Rigby

Contract Number:
Project Title:
Airport:

Maintenance, Repair and Operating Items List Approval

| Serial Number | Specification Section | Material/Product and Description | Quantity | Units |
|---------------|-----------------------|----------------------------------|----------|-------|
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MAA Representative

Signature: _____ Date: _____
Office of Procurement

Signature: _____ Date: _____
Office of Maintenance and Utilities

Signature: _____ Date: _____
Office of Technology

Signature: _____ Date: _____
Office of Capital Programs

Signature: _____ Date: _____
Office of Design and Construction

SECTION X-3 – MAINTENANCE, REPAIR AND OPERATING ITEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings, General Provisions, Special Provisions of the Contract, including Interim Standard Provisions Addendum and Technical Specification sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements governing Maintenance, Repair and Operating Items (MROI).

1.3 DEFINITIONS

- A. MROI is an amount, incorporated in the Contract as excess construction materials or equipment, held to allow for maintenance, repairs and operations. MROI may also be referred to as “attic supplies” or “attic stock.”

1.4 PROCEDURES

- A. Measurement and Payment: See individual Specification sections or plan notes for work that requires establishment of MROI. Methods of measurement and payment for MROI are specified in those Sections or notes.
- B. List of MROI: A schedule of MROI entitled “MROI List” is included at end of Section. Specification sections or plan notes referenced in the schedule contain requirements for materials described that must be purchased or salvaged for MROI. If during construction the Contractor generates additional surplus materials to be turned over to the MAA, the Contractor shall add those materials to the “MROI List.” Contractor must complete the ‘Unit Price Value,’ ‘Total Value’ and ‘Date Delivered’ on “MROI List.”
- C. Record of Delivery: Contractor shall complete “Record of Delivery” form for each MROI to be delivered to MAA. “Record of Delivery” form can be found at the end of the Section. The Contractor shall coordinate through the Engineer the delivery and acceptance of purchased or salvaged MROI at the MAA Warehouse (or at another location if so designated in the Specifications sections or plan notes), completion of the “Record of Delivery” form, and any other required documentation.

The designer is required to fill out the Table entitled “MROI List” and include it at the end of Section. The designer shall include blank lines at the bottom of the list for additional MROI generated during construction. The designer shall complete the columns for the serial number, specification section, material/product/description, quantity and units. A specific quantity and

measurable unit is required which corresponds to the justification provided in the Engineer's Report. A percentage of materials is not acceptable.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine products purchased under an MROI promptly on delivery for damage or defects. Replace damaged or defective products.

3.2 DELIVERY

- A. Contractor must complete the 'Unit Price Value,' 'Total Value' and 'Date Delivered' columns in the "MROI List" and complete a "Record of Delivery" form at time of delivery, for each item in order to document item and quantity received by MAA. Contractor shall add to the list any additional MROI generated during construction.

PART 4 -MEASUREMENT

4.1 METHOD OF MEASUREMENT

- A. No separate measurement will be made for work under this Section.

PART 5 –PAYMENT

5.1 BASIS OF PAYMENT

- A. No separate payment will be made for work under this Section. The cost of the work described in this section shall be included in the individual referenced Specification sections.

5.2 RELEASE OF FINAL PAYMENT

- A. Release of Final Payment and Contract Close-Out will not occur until Contractor completes administrative and procedural requirements outlined in this Section.

END OF SECTION X-3

Contract Number:
Project Title:
Airport:

Maintenance, Repair and Operating Items List

[illegible]

Procedures for Delivery of MROI (Maintenance, Repair and Operations Inventory), including Attic Stock, Surplus Materials, Spare Parts, Etc. To the MAA

1. All materials shall be delivered to the MAA Warehouse in the MAC Building, unless the contract specifically requires otherwise. All deliveries shall be coordinated ahead of time with

Phoebe Yost
MAA Procurement
410-859-7001 office
410-859-7323 fax
PYost@bwairport.com.

2. The contractor shall complete one **Record of Delivery** form (top part only) for each material to be delivered, and submit the form(s) to the Resident Engineer. The contractor may attach internal delivery tickets, transmittals, etc. to the forms.

3. The Resident Engineer will complete the bottom line of the form(s) ("Place where materials would be installed") and fax or email the completed form(s) and attachments to Phoebe Yost and request a delivery date. The "place where materials would be installed" is the location where the materials would ultimately be installed and the person who would need to install them. If you are unsure of this, ask Resident Engineer for clarification. If Phoebe determines that any portion of a form is incomplete or unclear, she may decline to set a delivery date until additional information is provided.

4. When a delivery date is set, the Resident Engineer will direct the contractor to deliver the materials.

5. The Resident Engineer must be present when the materials are delivered. If everything is found to be in order, the Resident Engineer and Phoebe or her designated representative will sign and date each **Record of Delivery** form. The Resident Engineer will make a copy of each signed and dated form, place a copy in the contract files, and email a copy to Alex Noorani, Manager, Division of Construction. If anything is not found to be in order, the Resident Engineer will not sign the form for that material.

RECORD OF DELIVERY

TO MAA MATERIALS MANAGEMENT WAREHOUSE
7005 AVIATION BOULEVARD, GLEN BURNIE, MD 21061

Complete one form for each material to be delivered to the MAA.

Contractor _____ Date _____
Contract Name _____ MAA Contract Number _____

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|---|
| Description of material (If known, include the name of product, manufacturer, product line, part number, model, color or other detailed description) |
| Type of material (For example: spare part, surplus material, salvaged material, supply, or other) |
| Required by (For example: specification section, note on plans, DCL, RFI, AWO, or other contract reference) |
| Quantity Delivered: Specified: Explanation of difference: |
| Price (For example: invoice, vendor's quote, manufacturer's suggested retail, or other price) |

Return the completed form(s) to the Resident Engineer to schedule delivery. Attach any transmittals or tickets.

RECEIVED BY THE RESIDENT ENGINEER:

RECEIVED BY MAA:

Signature _____ Date _____ Signature _____ Date _____
Printed Name _____ Printed Name _____

Place where materials would be installed _____ Location _____ MAA contact for installation _____